

ZOOLOGY.—*Synonymy of some native American and introduced millipeds.*¹ H. F. LOOMIS, Coconut Grove, Fla.

The changes here proposed are the accumulation of several years of study and are presented for the most part in order to clarify obscure points in the classification of American diplopods. My thanks are due C. A. W. Jeekel, Zoologisch Museum, Amsterdam, Holland, who pointed out and suggested my publishing certain of the synonyms.

Prostemmiulus xenops, n. name

A new name for *P. heterops* Loomis (Bull. Mus. Comp. Zool. 80: 29. 1936), preoccupied by *P. heteropus* Chamberlin (Occ. Pap. Mus. Univ. Michigan, no. 133: 15. 1923).

Genus *Alcimobolus* Loomis

Alcimobolus Loomis, Bull. Mus. Comp. Zool. 80: 56. 1936.

Chamberlin has indicated (Proc. Acad. Nat. Sci. Philadelphia 99: 44. 1947) that the genus *Alcimobolus* Loomis is synonymous with his *Cubocricus*, probably on the basis of the simple inner gonopods. Other characters of the gonopods, however, are strikingly different, not only from those of *Cubocricus* but from other related rhinocricids, and are amply sufficient to support generic separation. In *Cubocricus* the anterior plates do not exceed the median plate, but in *Alcimobolus* these plates are narrowed and carried far above the median plate. The posterior plates show an even greater departure from the more or less general form associated with most related genera by being higher and broadly rounded-truncate at the apex, near which the surface is slightly hispid; the latter condition, if not unique in the family, is certainly of rare occurrence.

Genus *Arinolus* Chamberlin

From 1922 to 1931 the writer collected extensively in southern Arizona in the hope of rediscovering three species of *Onychelus* that Cook described from there on females only (Proc. U. S. Nat. Mus. 40: 157-159. 1911). No species of this genus was found, but two supposedly new species of a related new genus, later described by Chamberlin under the name *Arinolus*, were taken from a number of localities. Both of these species also have been described by Chamberlin, one, *A.*

torynophor, as the type of his genus. Specimens of the other species, *A. hopinus*, collected by W. M. Wheeler at Tucson, November 21, 1910, and by the writer in the Baboquivari and Santa Rita Mountains, agree with Chamberlin's description of this species and also with Cook's description of *Onychelus hospes*, and it is thought that Cook was in error in referring his species to *Onychelus* and that now it should stand as follows:

Arinolus hospes (Cook)

Onychelus hospes Cook, Proc. U. S. Nat. Mus. 40: 157. 1911.

Arinolus hopinus Chamberlin, Bull. Univ. Utah 31 (11): 12; pl. 2, fig. 16. 1941.

Study of three female specimens in the Museum of Comparative Zoology, collected in the Huachuca Mountains of Arizona by W. M. Wheeler in 1910, and of Cook's descriptions of *Onychelus dentatus* and *O. suturatus*, whose type locality is these mountains, also leads to the conclusion that but one species is involved and that it should be included in the genus *Arinolus* as its largest species.

Arinolus dentatus (Cook)

Onychelus dentatus Cook, Proc. U. S. Nat. Mus. 40: 158. 1911.

Onychelus suturatus Cook, Proc. U. S. Nat. Mus. 40: 159. 1911.

A great many Arizona specimens collected by the writer in the San Tan Mountains (near Sacaton), the Picacho Mountains (between Casa Grande and Tucson), the Superstition Mountains at Fish Creek (the type locality of *A. torynophor*), and between Superior and Miami, have 39 to 44 segments and are 25 to 38 mm long and 2.5 to 3.8 mm in diameter. Chamberlin's descriptions of both *A. torynophor* and *A. apachellus* fit these specimens, and his drawings do not seem to preclude the possibility that but a single species was represented, for the drawings of the inner ("posterior") gonopods are not comparable; that for *torynophor* does not show the important anterior face, and the anterior view of the complete gonopods of this species shows several more separate pieces than occur in any specimen of this family that the writer has seen or than are shown in Chamberlin's drawing of *apachellus*, which appears to have one extra piece at the lower left,

¹ Received January 24, 1950.

the right side of the gonopod not having been illustrated. A drawing of the gonopods of a male from the San Tan Mountains is here included for comparison (Fig. 1).

Arinolus torynophor Chamberlin

Arinolus torynophor Chamberlin, Journ. Ent. and Zool. (Pomona College) **32**: 81. 1940.

Arinolus apachellus Chamberlin, Bull. Univ. Utah **31** (11): 10, pl. 2, figs. 12-14. 1941.

Genus *Pseudospirobolellus* Carl

Pseudospirobolellus Carl, Rev. Suisse Zool., **20**: 168; 1912.

Spirobolellus Attems, Mitt. Nat. Mus. Hamburg **24**: 131. 1907.

Azygobolus Loomis, Smithsonian Misc. Coll. **89** (14): 25. 1934.

Actual comparison of specimens may show that *A. tumidus* Loomis (Smithsonian Misc. Coll. **89** (14): 25. 1934) is a synonym of *P. bulbiferus* (Attems).

Genus *Chondromorpha* Silvestri

Chondromorpha Silvestri, Ann. Soc. Ent. Belg. **41**: 356. 1897.

Dasomus Chamberlin, Proc. Ent. Soc. Washington **43**: 34. 1941.

Xaymacia Loomis, Journ. Washington Acad. Sci. **38**: 187. 1948.

Chondromorpha kelaarti (Humbert)

Polydesmus kelaarti Humbert, Mem. Soc. Geneva **58**: 23, pl. 2, fig. 7. 1866.

Paradesmus kelaarti Pocock, Journ. Bombay Nat. Hist. Soc. **7**: 149, pl. 10, fig. 12. 1892.

Prionopellis kelaarti Attems, Denkschr. Akad. Wiss. Wien **67**: 358, pl. 5, figs. 99-100. 1898.

Dasomus bicolor Chamberlin, Proc. Ent. Soc. Washington **43**: 34, fig. 4. 1941

Xaymacia granulata Loomis, Journ. Washington Acad. Sci. **38**: 187-188, figs. 3-6. 1949.

Chondrodesmus rodriguezii (Brolemann)

Leptodesmus rodriguezii Brolemann, Mem. Soc. Zool. France **13**: 103, figs. 43-46. 1900.

Dirhabdophallus rodriguezii Pocock, Biologia Centrali-Americana: 164. 1909.

Chondrodesmus nicaraguae Chamberlin, Ent. News **35**: 174, fig. 1924.

It is thought that *C. nicaraguae*, which may or may not have come from Nicaragua, although collected at New York City from a shipment of bananas from that country, actually is a synonym of Brolemann's *rodriguezii*. Pocock's figure of the gonopods of *C. spatulatus* (*loc. cit.*: pl. 12, fig. 6c. 1909) does not show the crest mentioned by

Chamberlin in his description of *nicaraguae* but such a crest is shown in Pocock's figure for *C. granosus*, just above that of *C. spatulatus*. Brolemann's figure, cited above, shows the crest mentioned and figured by Chamberlin.

Genus *Docodesmus* Cook

Docodesmus Cook, Brandtia, fasc. 2: 5. 1896

Schizodira Loomis, Psyche **48**: 37-38. 1941.

An examination of Bollman's paratype female of *Stenonia maculata* (Proc. U. S. Nat. Mus. **11**: 336. 1888), recently found in the U. S. National Museum collection by R. L. Hoffman, settles several points that have long been in doubt. The family position of this milliped was correctly diagnosed as the Chytodesmidae, but the assumption that the species represented a new generic type, named *Schizodira*, was an error. Actually the species belongs to the genus *Docodesmus* Cook, although from Bollman's description its inclusion there could scarcely have been inferred. The "distinct notch" he noted between the third and fourth marginal area on each side of the first segment is very small (in the female at least) and might well escape notice, being no more conspicuous than the marginal irregularities of some other members of *Docodesmus*. Furthermore, Bollman's use of the word "crenulations," in referring to the shape of the outer margin of the lateral keels, is doubtful. "Indentation" would have been a more exact term, for the outer margins of segments 2-6, 8, 11, and 14 have two indentations setting off the three crenulations, and segments 7, 9, 10, 12, 13, and 15-19 have three indentations separating the four crenulations, as in the other species of *Docodesmus*.

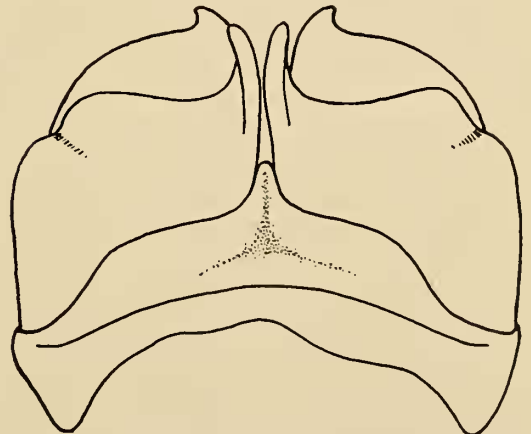


Fig. 1.—Gonopods (♂) of *Arinolus torynophor* Chamberlin, anterior view.

Docodesmus maculatus (Bollman)

Stenonia maculata Bollman, Proc. U. S. Nat. Mus. **11**: 336. 1888.

Platytrachus? maculatus Chamberlin, Bull. Mus. Comp. Zool. **62**: 216. 1918.

Schizodira maculata Loomis, Psyche **48**: 37-38. 1941.

Having finally located Bollman's species in the genus *Docodesmus*, we must reach a decision on the only other species of this genus known from Cuba. *Docodesmus cubensis* Loomis was founded on a mature female (Bull. Mus. Comp. Zool. **80**: 225-226, figs. 13, 14. 1937) when it was supposed to be the first Cuban species of the genus. It is closely allied to *maculatus* and eventually may be withdrawn into it after a study of more extensive material, but the present comparison appears to justify maintaining both species as valid. Outstanding differences of *maculatus* from *cubensis* are seen at the posterior end of the body, for the backwardly produced keels of segment 19 are small and acute, scarcely larger than any one of the four median tubercles of the posterior margin; between the keels of this segment there are six marginal tubercles (four in *cubensis*), with the outer tubercle on each side smaller

than the median ones; the last segment is almost completely hidden by the preceding one, and the dorsum has two rounded median tubercles much smaller than the conic ones of *cubensis*.

Genus *Jeekelia*, n. name

A new name for *Melanodesmus* Loomis (Bull. Mus. Comp. Zool. **88**: 73. 1941), which is preoccupied by *Melanodesmus* Carl (Mem. Soc. Neuchatel. Sci. Nat. **5**: 908. 1914). *Jeekelia granulosa* Loomis is the only known species.

Genus *Prosopodesmus* Silvestri

Prosopodesmus Silvestri, Zool. Anz. **35**: 362. 1910.
Homodesmus Chamberlin, Bull. Mus. Comp. Zool. **62**: 222. 1918.

Prosopodesmus jacobsoni Silvestri

Prosopodesmus jacobsoni Silvestri, Zool. Anz. **35**: 362, figs. 6, 7. 1910.
Homodesmus parvus Chamberlin, Bull. Mus. Comp. Zool. **62**: 223. 1918.

This species appears to have been introduced from the Orient into the Western Hemisphere, where it now is found in Haiti, Puerto Rico, St. Eustatius, and Brazil.

ZOOLOGY.—A new crawfish of the genus *Orconectes* from Louisiana. (Decapoda: Astacidae).¹ GEORGE HENRY PENN, Tulane University. (Communicated by HERBERT FRIEDMANN.)

The new crawfish described here shows its closest affinities to *Orconectes clypeatus* (Hay) and thus represents the second species described which belongs to the subgenus *Faxonella* of Creaser. I am naming this new species in honor of the late George E. Beyer (1861-1926), first professor of zoology at Tulane University and a pioneer in exploring the zoology of Louisiana.

Orconectes (Faxonella) beyeri, n. sp.

Diagnosis.—Rostrum without lateral spines; rostrum broad, length averages three times its width. Thoracic region of carapace slightly less than one-third the total length of the carapace. Male with hooks on ischiopodites of third pereopods only. First pleopod of form I male terminating in two rami: central projection a long sickle-

shaped process bent mesially; mesial process much shorter, less than half the length of the central projection, bent in same direction; the two pleopods overlap each other in normal position. Annulus ventralis immovable, surface contours as in Fig. 7; sinus either dextral or sinistral.

Holotypic male, form I.—Body subovate, not depressed (Figs. 1, 2). Abdomen narrower than thorax. Width of carapace at widest point slightly greater than depth in same region.

Areola broad (3.1 times longer than width), with five or six punctations in narrowest part; cephalic portion of carapace about 2.3 times as long as areola; length of areola about 30 percent of total length of carapace.

Rostrum without lateral spines; widest at base, margins raised but only slightly thickened, converging at acumen. Upper surface shallowly concave; no median carina. Acumen of moderate length.

Postorbital ridges prominent, terminating cephalad in small acute corneous spines. Bran-

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